

"The Original Online ST Magazine"

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Usergroups are fun! No, they are informative..ah no, they actually are very necessary as they teach, assist and keep interest levels at a highpoint most of the time. The bottom line is, a Usergroup is all of the

above and then some. One can't help but understand why a company, who has relied so heavily on Usergroups in the past, finds it easy showing it's appreciation in Michigan and other parts of the country. We say this after seeing a notice that Atari has announced that they will NOT have a booth at the MACE show.

Atari Corporation representatives will be in attendance at the Michigan Atari Computer Expo, May 6 & 7 at the Detroit Metro Airport Hilton. Also, there will be Atari Manufacturer's Representatives for the Michigan Area. And, the Atari MIDI representatives for Michigan will be attending and presenting several seminars on MIDI music and music publishing. Finally, there will be representatives from Atari Canada attending the show. These are the same people who presented such a professional image for Atari at the Toronto Atari Show last November.

Should Atari be involved? Answer? An emphatic YES. These usergroup sponsored shows are for and by the people, done for the benefit of the people and; ultimately, publicize the Atari computer line in a very positive manner.

Comdex/Spring '89 has been an eye opener for fans of Atari Corp.. The exhibit has been noticed by the best in the media, from USA Today to Network T.V. ..Sam has certainly taken steps to fulfill his promise to put the name of Atari all over the place. Taking on the the Atari "Portfolio" miniature MS-DOS pocket computer is a stroke of sheer genius. Take note dear hearts...all those Messy Dos supporters whipping out their hand held Ataris! Quite a sight ..it will be.

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Ralph.....

"1989 - ATARI'S QUEST!"

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> CPU REPORTâ €
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Issue # 17

by Michael Arthur

Remember When....

Nolan Bushnell, after starting a computer company named Atari, and introducing the 2600 Game System and Atari 400 Computer, sold it to an entertainment corporation called Warner Brothers, going on to design electronic toys such as Teddy Ruxpin for Worlds of Wonder Inc., and recently building Axlon Inc., his own game company?

CPU INSIGHTSâ €
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Comparison Contrast: The ATW and the 68030 TT

Part II

In Part I of this series, CPU Report featured the ATW, or Atari Transputer Workstation (formerly known as the Abaq Transputer), and the 68030 TT, two new systems being produced by Atari, which are aimed at the high-end of the microcomputer industry. Since Atari is preparing to shortly introduce the ATW and 68030 TT in the United States, CPU Report provided an in-depth description of these systems, so as to enable current ST Users that choose to purchase either computer to be more informed in their buying decision.

In Part II of this essay, the capabilities of the ATW and 68030 TT will be compared to each other, so as to both give a better perspective on features, and to see what markets they would be best suited for. Also, since both machines will have a list price of under 5000 dollars, it is prudent that we determine which one is the better machine, both in terms of price/performance, and in other important aspects of the computer industry, such as the versatility and functionality of a system.

In addition to the information shown in last week's article, CPU Report now has some additional data on these two machines:

There will be two models of the 68030 TT: The 68030 TT itself, which will simply be an upgraded, 32-bit ST (without Unix), and the 68030 TTx, which will come with AT&T Unix 5.3 and an 80 Meg Hard Drive....

In order to reduce the ATW's costs, Atari has chosen not to come out with a model of the ATW that would simply be an add-on to current Mega STs, but will be making the ATW solely as a standalone unit. Since the ATW uses a stripped down Mega ST motherboard as an I/O processing unit, containing 512K of RAM on board, it COULD be feasible that if Atari chose to put TOS 1.4 ROMs on the I/O unit itself, then the ATW could have a "dual boot" option, where it could either run TOS 1.4 (using the Mega ST motherboard) or run Helios using its own hardware....

In addition to the 4K of On-board Static RAM, the T800 has a number of programmable registers, for use by programmers. It is CPU Report's understanding that the T800 also has support for "workspaces" in this 4K of Static RAM, which could be used for microcoding.

Since X/GEM is not a viable standard for a graphical Unix interface at this time, Atari has chosen not to use it, preferring to wait until AT&T and Sun Microsystems' Open Look graphical Unix environment to be introduced so they can use it in the 68030 TTx and ATW.

The rest of this additional information has been integrated into the article itself. Also, it is important to remember that since the ATW is not shipping yet, and the 68030 TT's specs themselves are subject to minor change, one should expect variations between the 68030 TT's final features and the information contained in this article....

Graphic comparison of the features of the ATW and the 68030 TT:

ATW/68030 TT Features List:
(Comparison of each Systems' Features)

System Features and Components	Atari Transputer Workstation Cost: \$5000.00	Atari 68030 TT/TTx TT: \$2500 - TTx: \$4500
Features of Main Processor	20 MHZ Inmos T800 RISC chip running at 10 MIPS	16 MHZ Motorola 68030 running at 2-4 MIPS
Megabytes of Standard RAM	4 Megabytes of 32-Bit RAM 1 Meg of Dual-Ported Video RAM	2 Megs of 32-Bit RAM
Description of Operating Features	Helios Operating System with X/Windows V11, the standard Unix windowing environment	AT&T Unix Ver. 5.3, with X/Windows V.11. Has TOS ROMs for ST compatibility
Type of Bus Architecture	Proprietary 32-Bit Bus, with four Expansion Slots	32-Bit VME Expansion Bus with 2-4 expansion Slots
Graphic Display Resolutions and Capabilities	# of Displayable Colors Mode 0: 1280*960 w/16 Colors Mode 1: 1024*768 w/256 Colors Mode 2: 640*480 w/256 Colors Mode 3: 512*480 w/16 Million The ATW has a 24-Bit per Pixel (16 Million Color) Palette	# of Displayable Colors 1280*960 in Monochrome 640*480 with 16 Colors 320*200 with 256 Colors Also supports standard ST resolutions, and has a 4096 Color Palette
Standard Amount of Mass Storage	40 Megabyte Internal Hard Drive	68030 TTx uses 40-80 Meg Internal Hard Drive

Built in I/O Ports	Uses Mega ST Motherboard for an Input/Output Controller	[1]SCSI - [1]ACSI HD Port 1 Ethernet Port (TTx)
Sound/Audio Capabilities	Unknown at this time	Not certain of sound capabilities at this time
Networking Capabilities	None, except the T800 is made to perform Parallel Processing	Sun Network File System, Ethernet interface

Based on both this graph, and last week's System Descriptions, I have made a comparative analysis of both systems, and made these standings, which are classified according to the above topics:

Main Microprocessor:

First Place - Atari Transputer Workstation. Reduced Instruction Set Computer (RISC) chips and parallel processing promise to be a large part of the future of computing, and the Inmos T800 provides these technologies, while the Motorola 68030 does not. Simple, concise, and a good reason to use the ATW for future applications....

Inmos T800 Comparison:

The T800 has many advantages over many processors currently out on the market. Besides the fact that it is a RISC chip, and that it has parallel processing capabilities, it also has 4K of On-Chip Static RAM which could be used for anything from emulating programmable registers to a high speed CPU cache, and it has a 64-bit floating point math unit built-in, which can perform floating point calculations at a rate which allows a 20 MHZ T800 to be five times faster than a 68020/68881 combination in a standard Whetstone benchmark. Since it can also run at 10 MIPS, there is a lot of evidence suggesting that it is more powerful than the 68030 chip. However, since it does not have as much software available for it, the compatibility problem is a great hindrance. But with the help of the Helios operating system and the ATW....

Motorola 68030 Comparison:

The 68030, while not providing some of the new technologies seen in the T800, has a huge advantage in its compatibility with previous Motorola 680x0 processors. Not only can Unix applications written for the 68000 run on the 68030 TT via minor porting, but the 68030's Memory Management Unit (MMU) will help the TT's version of Unix to handle "ill-behaved" Unix applications more efficiently.

Operating System Features:

First Place - 68030 TT. In order to have full support of both the T800's parallel processing features, and to provide powerful multitasking multiuser operations, the ATW had to forsake Unix compatibility, and use the custom-made Helios Operating System. Since the 68030 TT uses standard AT&T Unix, even though Helios is designed to make porting Unix programs to it fairly easy, the 68030 TTx has an advantage in the area of software availability. Also, both versions of the 68030 TT have TOS 1.4 ROMs, enabling them to run current Atari ST programs. This capability should both help it to be more tantalizing to current ST owners, and to eventually become the successor to the Atari ST....

ATW Comparison:

The Helios operating system was made to optimize the operations of a parallel processing chip such as the T800, as well as letting it be as Unix-compatible (through emulating Unix Version 7 calls) as possible. Even though Helios serves this function well, and has the potential of becoming the standard operating system for parallel processing microprocessors, since there are now very few programs available for it, the 68030 TT has an advantage in using standard Unix....

68030 TT Comparison:

Unlike the 68030 TTx, the 68030 TT will only use its own TOS 1.4 ROMs to run current ST applications. Although there are some potentially crippling incompatibilities between the 68000 and the 68030, such as the MOVE instructions may do some things differently on both chips, and the 68030's exception stack frames being different from the 68000's, there is little probability that the 68030 TT will have significant problems running Atari ST applications. However, only ST GEM applications which have been STRICTLY written to conform to Atari's programming specifications will be able to use the 68030 TT's advanced graphics, and since 99% of ST GEM applications make certain "assumptions" about TOS, it seems that when the 68030 TT comes out there will be a deluge of updates and fixes, as developers rush to "clean up" their programs so they can maximize the TT's capabilities. Incidentally, it is these same "assumptions" that keep the possibility of Atari making a version of TOS which reliably multitasks all ST programs from being realized anytime in the near future....

68030 TTx Comparison:

Along with running TOS 1.4, the 68030 TTx will come with AT&T Unix 5.3. Even though there are other versions of Unix which are FAR more powerful than AT&T Unix (Berkeley Unix, for example, has become a de facto Unix standard due to its superiority over AT&T Unix), since AT&T is the original developer of Unix, Atari must figure that AT&T Unix, logically, will continue to be the main standard. But then, Berkeley Unix has gained GREAT widespread use in the Unix community, and the NeXT uses Mach, a Berkeley Unix-compatible OS....

Expandability:

First Place - Atari 68030 TT. It uses the VME Expansion Bus, which is not only used in Sun Workstations, but has been a standard since the early 1980's. As a result, there are hundreds of VME cards out on the market. In comparison, the ATW uses a proprietary bus, which, although being the most useful to the T800 chip, is adversely affected by the lack of compatibility....

ATW Comparison:

In order to support the T800's parallel processing capabilities more efficiently, the ATW does not use an industry standard expansion bus, like the VME bus used in the 68030 TT, but uses a proprietary expansion bus, with address, data, interrupt and handshaking lines along with transputer link lines. There are actually two connectors; one for your typical bus and the other for transputer links. There will be a link switch card to allow the transputer network topology to be changed on the fly. This card will not take one of the four slots available on the ATW. But in the final analysis, the ATW expansion bus' lack of compatibility hinders it. However, since the NuBus is made to support multiprocessing, can be used with any type of processor, and is rapidly becoming a new standard in

expansion buses, why couldn't have Atari used a modified version of the NuBus on the ATW?

68030 TT Comparison:

The 68030 TT uses a full 32-bit version of the VME Expansion Bus, which was developed by Motorola and others. Besides being optimized for the Motorola 680x0 series of processors, the VME bus has been in use since the early 1980's, and as such, has a vast number of VME boards available for it. Ironically, though, while most VME cards will be able to work with the 68030 TT without modification, many boards which handle specific operations (such as 24-bit graphics cards, or coprocessor boards) will need to be modified to work at maximum efficiency with the 68030 TT, and the success of the TT in this area may depend on the makers of VME cards leaping to the Atari standard without hesitation....

Graphics Displays:

First Place - Atari Transputer Workstation. One of the policies that Atari uses for designing computers is to provide the maximum graphics resolution and color palette for a computer without slowing down its speed. Given that the T800 in the ATW can run at 10 MIPS, it would seem logical that the ATW would be far superior in graphics to the slower 68030 TT. However, the 68030 TT could have been considered best in terms of price/performance, but for one thing: 286/386 IBM compatibles using VGA graphics can provide the same performance for the same price....

I/O Ports/Networking:

First Place - Atari 68030 TT. Since the ATW uses a Mega ST motherboard as an I/O processing unit, it has all of the I/O Ports (including MIDI, DMA, and RS-232 ports) available on the ST. But since the 68030 TT ALSO provides all Mega ST I/O ports, and has an Ethernet port for advanced networking capabilities, as well as supporting Sun's Network File System for compatibility with current LAN networks (which will help the 68030 TT to be accepted in the business world), while the ATW only supports networking links for the T800's parallel processing operations, the 68030 TT ends up having the edge....

Market Outlook for the ATW and 68030 TT

ATW Outlook:

The Atari Transputer Workstation is, undoubtedly, a VERY unique machine. Combining parallel processing and RISC technology with Helios, a custom-made, versatile OS, and combining them all with a VERY powerful workstation that costs less than some models of the Mac SE, the ATW has EXTREME potential. The most obvious market for it is in Research Labs and Universities, who would need its speed and graphics capabilities, as well as the lucrative image processing market. However, since systems having similar capabilities are priced starting from \$20,000, the ATW would have few hindrances in becoming a standard in the growing workstation market.

However, these hindrances are VERY serious. Even though the ATW can network T800's for parallel processing, the ATW does not support Ethernet, NFS, or any standards for LAN networks, and in order for it to become a popular business workstation, it NEEDS LAN networking capabilities. But the most serious problem it may have in the workstation market is its name,

as even though we know Atari does not just make game machines, many prospective businesses may shun BOTH the 68030 TT and the ATW because of Atari's past reputation....

And contrary to opinions of a few, even though a rose by any other name may still be the same, if Commodore had named the Amiga the Commodore Plus or C-1000, it would NOT have sold as well as it did, simply because the name 'Amiga' helped distinguish it from any of Commodore's any other products....

68030 TT Outlook:

Since the 68030 TT runs TOS 1.4, has many improvements over its predecessor (including VGA-style graphics which rectifies the ST's unimpressive graphics), and outclasses its competition with the use of the 68030 chip, as well as an industry-standard expansion bus, the TT seems a fitting upgrade to the Atari ST. Priced at \$2500.00 (the same as a Mega 4) with 2 Megs of RAM, the 68030 TT is obviously aimed at the low/middle end of the market which the ST is targeted towards, and is intended for the ST User who wants to upgrade to a more powerful system. Given all this, the 68030 TT seems destined to become the ST's successor.

But since it is in the same price range as the Mega ST's, is aimed at the same market, and uses an industry standard bus (while Atari shunned the Mega ST's expansion bus to the effect that there are VERY few boards out for it), the 68030 TT makes the Mega ST obsolete. And since Atari will probably not allow ST owners to trade-in their Megs and upgrade to the 68030 TT for a small fee, the TT will be a harbinger of tough luck for present Mega ST owners. Also, it seems that with the 68030 TT out, Atari will have to make the 1040 ST or Mega 1 the 'low-end' ST, selling it in the home, education, and small business markets at a reduced price. Even then, in order to maintain continuity in its product line, Atari will need to sell the Mega 2 and 4 in the \$1500-2000 dollar range. And since these Atari ST's are vying for the same market that the 68030 TT is....

68030 TTx Outlook:

The 68030 TTx is directly poised at the new 'Personal Workstation' market, which promises to grow into a billion-dollar industry in the next few years. It meets all the requirements for a workstation, as it has AT&T Unix, compatibility with standard LAN Networking Systems, and graphics which, though not impressive, are common for many low-end workstations. Since similarly priced Unix workstations will not appear until 1990, the 68030 TTx has a great shot at propelling Atari into the middle/high end of the microcomputer market.

The 68030 TTx will be especially popular in Europe, where there is a massive need for good Unix workstations, and where Atari has enough clout to make the TTx a standard in the business market. However, the TTx may not be so lucky in the US, where most people who need Unix are capable of buying Sun workstations, and when, given the choice of the Atari 68030 TTx, may choose to pay more for a Sun or IBM that is less powerful, because companies in those markets have two dominating advantages: They are more recognized for quality products in that market, and businesses are sure of their ability to FULLY support their Unix workstations. And unfortunately, those are two things that Atari is not known for in the US....

But ponder, if you will, this question:

1) Given the 68030 TT and ATW's advanced features, what is the possibility of the main users of Unix workstations (mainly large universities, Research Labs, and corporations) not readily accepting the 68030 TT or the ATW in the US until the Atari ST's current status in the US computer market improves to a certain extent?

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CPU REPORT CONFIDENTIALâ €
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Portland, OR

According to increasingly persistent rumors, Intel will officially introduce its new 80486 chip shortly after Spring Comdex. Among the many predictions about the 80486's capabilities, industry analysts say that most likely it will have a floating point math chip built in, have a virtual 286 mode (enabling the 80486 to multitask 80286 programs, just as the 80386 can multitask 8086 programs in its virtual 8086 mode), as well as having 4K of RAM onboard as a data/instruction cache.

It is also rumored that the 80486 chip will be priced towards the workstation or minicomputer end of the market. Unlike the 68040, though, the first 80486-based PC's are likely to be available soon after Intel debuts its new chip. Reason: IBM has had at least a dozen 80486 chips in its Labs since September 1988, and since it shouldn't be difficult for IBM to adapt its MicroChannel architecture to the 80486....

Cupertino, CA

Apple has recently introduced the Macintosh IICx, a compact version of the Mac IIX which uses a 16 MHZ 68030 and has three NuBus expansion slots. Internally, it is identical to the Mac IIX, having the same logic board and the same speed. However, the main emphasis in the Mac IICx, which will become the "mainstream" Mac II, is in its modular design. The Mac IICx has a smaller footprint than the Mac IIX, and consumes less power than previous Mac II designs. Cost: \$7800.00 with Apple's 80 Megabyte Hard Drive, which is the same price as a Mac IIX with an 80 Meg Hard Drive....

Portland, OR

Even though the 80386 is associated with high end IBM compatibles, roughly 30 percent of Intel's sales of the chip are for use in embedded applications, such as laser printers or fax machines, that are not technically computers. Seeing this, Intel has made the 80376, a version of the 80386 similar to the 80386 SX that is custom-made for this market.

New York, NY

The Open Software Foundation, an independent corporation backed by ten of the most influential Unix vendors in the industry (such as IBM and DEC), as part of their goal of establishing a new systems/software standard for UNIX, has adopted a standard Graphical User Interface

for its OSF/Motif system. Out of 26 possible choices in graphical user interfaces (including AT&T's Open Look and X/GEM), the OSF chose the Common X Interface, otherwise known as IBM's Presentation Manager....

Lest you be a tad bit surprised at the OSF's choice (read: sad mistake), remember that the OSF is using AIX, IBM's version of Unix, as the basis for its new Unix standard. One thing, though: IBM did NOT try to make Presentation Manager the OSF's windowing environment, since it was OS/2's interface, but it was Microsoft who registered and lobbied for it. Presumably with IBM's consent, of course....

> COMDEX/SPRING 89 NewsPlusâ €
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COMDEX/SPRING '89 REPORT
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courtesy of: GENie Information Services
Topic 27, Category 14

posted by

JEFF WILLIAMS

at 22:11 CDT

There isn't much that is new being shown by Atari Computer at Spring Comdex that hasn't been shown elsewhere. But what is significant is Atari's pledge that all hardware being shown will begin shipping around June of this year. Yes, even in the United States! Here's a brief rundown of some new hardware being shown. There was virtually no spec sheets on the new items, so I'm doing the best I can from memory when it comes to describing what I saw, so I'm counting on John, Dan, or another of the Atari employees (or Comdex attendees) to set me straight if I should omit something or make an error.

Clearly the biggest attention-getter is the smallest MS-DOS computer ever to come to market. The Atari Folio is barely the size of a video tape cassette, yet features a full keyboard (with small, but REAL keys that have a solid feel to them, or so I am lead to believe), a 40 column LCD display, 128K RAM (expandable to 640K), and built-in MS-DOS 2.11, word processor, spreadsheet (creating 1-2-3 compatible files), database, appointment calendar, and phone dialer (hold the phone handset to a built-in speaker and the Atari Folio will sound the tones of the number to be dialed).

Disk drives are replaced by ultra-thin RAM wafers that plug into the side of the Atari Folio which appear to the system as very fast disk drives. Standard PC peripherals like disk drives, printers, and modems can be attached to Atari Folio with optional card- cables that slip into the RAM

wafer slot.

A "smart cable" will connect Atari Folio directly to an IBM, clone, or ST for direct transferring of data. People were crawling out of the woodwork to get a look at the Atari Folio. Priced at \$399.95, the Atari Folio (which slips easily into a jacket pocket, brief case, or handbag) is sure to be the ideal "second computer" for the traveler, commuter, engineer, student, salesman, and so on.

Another computer for people on the move is Stacy, the ST laptop. I have to admit, the photos I had seen of it had me thinking it was going to be too big and cumbersome, but seeing it in person alleviated that concern. It is just right (to quote one Miss Goldilocks). What can I say? It features an LCD twist display with a resolution of 640x400 (just like the SM124 mono monitor), a little trackball to control the screen pointer (as well as mouse and joystick ports), and all the other features of a 1040ST (1 meg of RAM, built-in double-sided drive, and all the same connectors, including a monitor jack for attaching to external ST monitors...mono OR color). There will be a few different configurations available beginning with one floppy drive for \$1499.95. From there you can get the two drive unit (I didn't catch the price for that one). Or you can put a 20 Meg hard disk where the second floppy would have gone for a total of \$1999.95.

Atari Computer's MegaFile 44 was there too. Sporting a removable hard disk cartridge, the MegaFile 44 will be priced "under \$1200" and additional cartridges will cost \$150. The cartridges will hold 44 megabytes of data. I was told that no special software is needed to support the MegaFile 44.

Of course, Megas and SLM-804 printers dominated much of the exhibit, with a number of third party developers showing their ST products. I'll try to follow up with some details of what they were showing in a later post.

BTW, the IBM-COMPATIBLE PC-4 was also being displayed, but I have to admit I really didn't give it much attention today. I'll check it out tomorrow.

The STacy was operating, but it was locked up inside a glass cube (as was the renamed Atari Portfolio). No, I haven't had the opportunity to put hands on either machine, but I've talked with some of the non-Atari folks that HAVE operated them so I'm convinced they're real.

A blitter in the STacy? Good question. I don't know. I'll pass on that one for now (maybe I can find out and post it later. The Atari people are saying the base unit will be configured exactly like a 1040ST (1 meg, 1 DS/DD drive) so if that is to be taken literally then I suppose there may not be a blitter. Consider also that this will normally be using that LCD screen. While the screen refresh is peppy, I just wonder if a blitter wouldn't be "wasted" on that screen.

P.S. Atari assured me that STacey will ship with TOS 1.4 installed.

I'm not sure that I would agree that the STacy and Portfolio are not highlighted well...at least not to the point that it constitutes a major flaw in Atari Computer's presentation of these products at this show. They are in the center of the exhibition area in the most open space of the booth, constantly manned (womanned?) by Atari employees answering questions and extolling their virtues. Their location didn't keep USA Today from finding them Monday. NBC probably will find them easily enough tomorrow (yikes...make that TODAY!) when they come to shoot a piece on the Portfolio. Add to that the fact that Atari has a continuously running

video (of British origin) featuring the Portfolio at the corner of Atari Computer's booth that faces the IBM exhibit entrance (very nice touch!). I think that the biggest problem with finding these products is the fact that there is usually quite a body of people surrounding them most of the time.

Despite this, I'm sure Atari Computer could be highlighting these exciting new products better than they have. But I would be hesitant to suggest they're highlighting them poorly. Some of the third party Atari producers manning stations at the Atari Computer exhibit include:

Atari (well, they're not a third party developer, but they are showing some new software):

Featuring their line of educational products as well as some exciting new ones, like DeskSet II and WordFlair.

TouchView:

Demonstrating their touch-sensitive system designed to automate ordering, inventory control, bookkeeping functions, etc. in a restaurant and bar operation.

Timeworks: Desktop Publisher

Soft-Logik: PageStream

ISD: Calamus, DynaCad

Mark Williams: Mark Williams C

MichTron:

Fleet Street Publisher 2.0, HiSoft Basic, and a host of other productivity, developer, and entertainment software. They are also teasing us with a mock up of something called "Fast Fax", an ST fax hardware/software combo that is currently in development.

Gadgets By Small:

Neither Dave nor Sandy are here for the show, but Spectre *IS* being shown.

Word Perfect: Word Perfect for the ST.

Gribnif: Neodesk 2.03

Migraph:

Easy Draw, Touch-Up, and scanners. The scanners include a hand-held scanner to be bundled with "Touch-Up Lite" for \$400, as well as their sheet-fed and flat-bed scanners.

ICD: Their FA*ST Tape Backup system is being featured.

Antic:

GFA Basic 3.0 and their Cyber lineup are being featured, along with STart magazine and other products from their software catalog.

Computer Avenue:

"Mirror Image" is a new, very fast, hard disk backup utility. It produces image backups of the entire hard disk. I believe the price is \$27.95 (it was either that or \$29.95).

Abacus: Featuring their software and book line.

Biodata:

This is a West German company producing "BioNet 100", an Ethernet network for the Atari ST which can connect via gateway to Novell and Dec Net.

GENie:

Oops, sorry, GENie isn't at the show. But Nevin Shallit is *EVERYWHERE*, talking to everybody. You can expect some excellent Comdex coverage from Nevin when he gets back online next week (the poor guy is modemless right now!) and in the next issue of ST-Informer (complete with photos!).

Others I may have neglected mentioning:

I'm sure I have unintentionally omitted some folks. One whose company and product name I just don't remember was showing an R/C plane/helicopter simulator, complete with an actual refitted R/C controller connected to a cartridge (which contains the software, making this the first "game" cartridge for the ST that I have seen). I regret if I've missed anyone else. I hope others who are attending Comdex will fill in possible omissions I've made.

WordFlair:

A new document processor to be marketed by Atari, but is written by Blue Chip International. This GDOS-based product looks very sharp and very exciting. Listing for \$149.95, WordFlair should be available by sometime in June. First, this thing is FAST. It doesn't appear to me that the fastest of typists need ever fear of out-typing WordFlair. It's much faster than Word Writer 2, MicroSoft Write, and WordUp.

WordFlair allows the importation of graphics with automatic wraparound of text. WordFlair can import data from ASCII files, databases, and spreadsheets for inclusion in your document. It even has its own limited-feature database built into it. WordFlair can perform mail merges and can even create a number of different charts (pie, bar, line, etc.) in your document for you.

WordFlair appears to make effective use of icons to select many of its features (similar to Calamus, but not anywhere as extensively as Calamus). I suspect many users will find the user interface to be very comfortable and well-implemented. While WordFlair includes several features normally found in desktop publishing software, it is not intended to substitute for DTP software. It is not really aimed at the word processor market either, because it is more than just a word processor. They label it a "document processor", but I imagine many folks will find it to be very suitable as a word processor.

Jeff Williams

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....many thanks to GENie services for making the above available.

Editor Note:

Jeff Williams, a dedicated Atari ST enthusiast, deserves a heartfelt thank you from all of us for a very fine, high quality summation of Atari's presentation at Spring Comdex. Job well done and I might add ..voluntary!

> STR Spotlightâ €
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HOLOBYTE COMMUNICATES!
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Dear Atari ST Users:

Boy, are you guys active! I've read many of your letters regarding Falcon piracy and our Atari ST Tetris release. As with the reactions to my original letter on piracy, we at Spectrum HoloByte have had a lot of reactions to all of your comments.

I would like to point out something: I wrote my letter for several reasons: First, to bring to everybody's attention the impact of piracy; second, to explain from a programmer's and publisher's point of view the market factors one considers when making a decision on which machine to support; and third, to say what other publishers are saying behind closed doors.

Look, I know that many of you are upset about this entire issue of piracy. Some of you point out that we haven't taken out many ST ads. Others felt that we didn't have an effective marketing rollout campaign. Many feel that we should just shut up about the whole issue and go back to the IBM and Mac market. On the other hand, many have written us in full support (thanks!).

Let me say this, Falcon has been a very "successful" ST product here in the United States...and I'm not talking about a financial success. Falcon ST has climbed to the top of the ST charts. On several charts, Falcon remains the number 1 best seller. I bring this up because if we are selling the most, I hate to see what those below us on the charts are selling. I personally want to say thank you to all those Atari ST users who did buy Falcon. They are the ones who put the game on the top of the charts. My company and I will totally support those people who have bought our programs by bringing out updates and making modifications to the programs as per their suggestions (so don't stop writing).

Peter Szymonik brings up many good statistically correct points in his letter. Falcon has sold well in Europe, but that isn't the issue. Support for ST in the United States is the issue. First off, we only get a sublicensing fee from European sales of about \$1-\$2 per unit sold. I agree

with Peter: Piracy is not just a problem with ST, but with all computer formats. It just hurts ST sales more because the installed base is so small, while it costs exactly the same to develop a title on the ST as it does on the Amiga or Macintosh. Peter, you're right on most points except you over look the most critical: if a company or programmers can't make money in a market, they won't support it--plain and simple.

Peter also points out the lack of advertising as compared to the Mac, Amiga, and IBM magazines. It costs several thousand dollars to run one ad one time in the major ST magazines. If a best-selling program like Falcon only sells 8,000 copies, it cannot support the additional expense of a major ad campaign. A great deal of momentum for the ST version was built up during the year preceding its release.

Editorial coverage during that year in ST publications was great. Readers were notified months ahead that Falcon was coming for the ST, and the program was given immediate reviews as soon as it shipped. Editorial coverage, which is far superior to paid advertising, has been nothing but great. So I can't buy the argument that nobody knows about the product, nor can I agree that the marketing method of the product is the cause for a lack of sales (remember Falcon is #1 on many distributors charts).

One last point: We brought Falcon out on the ST because many of the STers ASKED for it when the Macintosh version came out. We spent the time and money to make it take full advantage of the ST and didn't simply make another port. In fact, the ST is better than the Macintosh version in almost every way (excluding sound). We also plan to revise the program to fix some of the control problems.

Tetris is a different story. I've already had No. 19 reply to all of the notes and comments regarding Tetris. PLEASE DON'T ABUSE HER or her staff (me, I'm open game), since she supports the network and does much of her support work on her own free time. I must point out that most companies do not support online services or have dedicated support for these services. Most companies use online services only as a way to announce new products.

I'm sorry that a few of you don't like the program, but the Beta Testing department has done a good job. The original ST Tetris program given to us to sell in the USA from Mirrorsoft in the U.K. was a disaster. The user interface stunk; it didn't follow any of the GEM rules; there wasn't any sound; and the graphics were awful. Beta Testing refused to publish it. The British refused to change it. We paid a British ST programming group to change the program. They added the graphics but then refused to do any more work on it since "there wasn't any money in the USA ST market".

We ended up changing it internally to add the GEM interface, the sound (which the IBM doesn't have), and graphics, as well as improving the user control. Granted, we didn't print a special ST manual, and as in the Apple GS and Mac II versions, we didn't have a desk accessory version. Still, Tetris is a fun product on the ST and has received highly favorable reviews. In fact, in London, Mikhail Gorbachev is opening a trade fair, with ST Tetris as a representation of what East and West can do if they cooperate.

Please, keep sending in your comments, and we will try to make improvements to our programs.

Piracy is not the only problem, but piracy is a problem. Perhaps I shouldn't have said anything about it. Perhaps it is a myth within the

industry. Other companies have withdrawn from the market. They never made a public statement, they simply withdrew. When you ask them why, they simply say there isn't a market.

I don't believe that. (Though, sometimes when I see free copies of our programs on bulletin boards or people with boxes and boxes of copied software, I scream out and tell myself I will never publish another title--and my staff just smiles and says, "There he goes again.") The Atari ST is a valid machine.

We just have to figure out a way as an industry to allow programmers and companies to make money and earn a living at it. I don't have all the answers. I invite all of you to continue writing. I'll listen. But be realistic. Everybody has to win or everybody loses. I will continue to give you information and a publisher/programmer perspective.

One last note, some of you have said that you'll never buy another Spectrum HoloByte product. I'm sorry you feel that way, but it's your right. I won't apologize for my letter because it's the way many of us feel in the industry. (It's just that nobody has been willing to step up to the table and say it.) Don't take it out of context. I look forward to reading more of your comments, and please direct your more brutal stuff towards me and not my staff. They really do care about what you think. They are just knee deep in work and sometimes can't get around to answering all the phone calls, letters, and network online services with a 24-hour turnaround period. Sometimes it takes a week. Please be patient. You can be assured that they are reading your comments and are taking them seriously, as am I.

Gilman (Chopstick) Louie
CEO Spectrum HoloByte,
a division of Sphere, Inc.

Editor Note:

Mr G. Louie has assured us that the support for the ST market place has not diminished at all, in fact, SH plans to launch a number of new and rather innovative products in the next few months. "We may even see copy protection not used at all"...he said.

> Michtron BBS STR Focusâ €
=====

Part II

MichTron BBS Ver. 3.0
=====

Getting acquainted with MCL...

Michtron Command Language (MCL) is a compiled 'C' like language that

is very powerful and extremely fast. It permits the sysop to build customized menus and add many features to the BBS program. Knowledge of MCL is not required to operate the Michtron BBS, however it's use provides an outstanding degree of flexibility to the sysop.

Michtron BBS has a runtime interpreter built in, when an MCL file is read, the various commands in the file instruct the BBS to perform certain functions. The current MCL has 26 integer and 26 string variables. In addition, there is access to many of the internal procedures and functions of the BBS.

An MCL file is a collection of MCL commands written in 'C' style, then compiled by MCL.TTP. This compiler not only does the compilation but will report any errors to the screen. Thus, designing, writing, debugging any custom routine becomes an easy task.

Atari Corp. set up the Michtron BBS ver. 3.0 with a 5 line Double Click Multi-Line Port cartridge installed. Frankly, speaking the MichTron BBS is a fast reliable system that will not slow down at all with multi-line operation in place. It is capable of just about anything imaginable as far as customization is concerned. For those who wish to have carefree operation coupled with trouble-free operation, MichTron's BBS ver 3.0 and the Double Click Multi-Line Port are perfect.

Now your Atari ST can multi-task!

That's right, multi-task! MichTron BBS 3.0, the very first BBS program for the Atari ST that performs true multi-tasking, is available right now from MichTron, Inc.

Written from precise specifications, MichTron BBS 3.0 by Timothy Purves was engineered from the ground up with its very own multi-tasking kernel. What does this mean? Well, it means that MichTron BBS 3.0 can handle 1-5 users at the same time with no noticable system slowdown.

You don't believe it? Just call Atari Corp. very own BBS (ATARIBASE) and see for yourself why MichTron BBS is the program of choice for Atari Corp. You can download, upload, read messages, chat to other online users, and even have the sysop online at the console, and never notice a slowdown! This is true multi-tasking at work. And if we dig further into the BBS, we will see that MichTron BBS was designed with both the user and the sysop in mind.

For the user, HOTKEYS (keystrokes that perform actions as soon as they are pressed) make moving around from one part of the BBS to the other very easy. Lightning fast algorithms provide for very fast response from the BBS no matter what is going on on the other lines. Assorted download protocols, private mail, and other features which can be added by the sysop make this BBS a 'fantasy' come true.

For the sysop, the power of a BBS has never before been raised to such heights ! With the introduction of a new MCL (MichTron Command Language) compiler for the BBS, the sysop can personalize the BBS beyond belief. What can be done in the MCL? Would you believe Electronic Mail, File Mail, Wheel Of Fortune game, a quotation machine, dating service, questionnaires, etc. So many possibilities exist with the MCL. You could write your own message base, your own file sections, virtually customize any part of the BBS to perform the way you want.

With syntax very much like 'C' the MCL is easy to learn and use. Here is a small sample of the MCL:

```
new_procedure;;
  print("Please enter [Y] or [N] -> ");
  k = key_match("yn");
  print("\n\n");
  if (k == 'Y') {
    print("You pressed 'Y'\n");
  } else if (k == 'N') {
    print("You pressed 'N'\n");
  }
return;
```

A well established library of MCL routines (around 70) provide a lot of flexibility, more than has ever been available to a sysop before. Once the MCL program is written (using your favorite editor) you run the source code through the MCL compiler. Then when you run the BBS, the compiled code is executed directly from the BBS with amazingly fast results.

Think about it. Users have been able to customize and write 'DO files' for many terminal programs for years. Why not extend that to the BBS? Indeed, why not? Well, the first step has been taken. And as a first step, it shows that the concept is sound, well implemented, and definitely deserving of further support and development.

So what else does the MichTron BBS 3.0 offer? An extended protocol list, including Y-Modem Batch. The easiest to use sysops console, where you can view any users screen (while they are logged on!), view the system resources, edit user profiles, delete files, move/copy files, rename files, add files to the download listings, and much, much more.

Did we mention that MichTron BBS 3.0 is multi-user? Of course we did, but what we didn't say was that each port can run at speeds up to 9600 baud! That's right 9600 baud and *NO* system slowdown. In order to use the BBS as a multi-user system, you would need to get the Double Click Software DC-PORT cartridge.

"Compared to the other BBS programs available for the ST right now," states Michael B. Vederman of Double Click Software, "MichTron BBS is by far the best thought out and designed BBS I have ever seen. It is designed with today's power user in mind, with features people have come to expect!"

MichTron BBS is shipping right now! You can get an update for \$35 from MichTron, or buy the MichTron BBS 3.0 for only \$79.95.

The next generation of BBS programs has come to light. Now see the light for yourself, call Ataribase at (408)745-5308 to see five lines in action; or call the MichTron support BBS at (313)332-5452; or call the Houston Atari ST Enthusiasts at (713)973-6665 or (713)973-6555.

For more information about MichTron BBS, call or write:

MichTron BBS Ver. 3.0 - Double Click Multi-Line Port

..are available from Your Dealer or:

Michtron Inc.

576 S. Telegraph
Pontiac, MI 48053
313-334-5700

WANT TO GIVE YOUR ATARI ST COMPUTER THREE TIMES MORE COMMUNICATION
POWER?

You can do that with DC-PORT, the new hardware expansion cartridge from
Double Click Software.

WHAT IS DC-PORT?

DC-PORT is a serial expansion cartridge that plugs into your ATARI 520,
1040 or MEGA ST cartridge slot. DC-PORT gets all power from the computer's
cartridge slot. DC-PORT is completely interrupt driven. DC-PORT is BIOS
compatible. DC-PORT is affordable.

WANT MORE INFO?

With DC-PORT you can use existing software and still utilize the extra
ports. Imagine connecting to multiple BBS services using your terminal
program. Imagine easily switching back and forth between the sessions in
the same program. You can! DC-PORT's AUTO folder handler installs a
special driver which allows you to redirect the ST's standard RS232 port
through one of the DC-PORTs. DC-PORT software also adds extra devices to
the operating system, so you can easily add support for DC-PORT in your own
programs.

HOW EASILY CAN YOU PROGRAM FOR DC-PORT?

As easily as you can program for the ST's main serial port. For example,
if you have sample code that looks like this for the RS232 I/O:

```
#define AUX 2

while (TRUE) {
    if (Cconstat()) {
        if ((key=Cconin()) == '/') { /* get key until '/' character */
            break;
        }
        else
            Bconout(AUX,key);
    }
    if (Bconstat(AUX))
        Cconout(Bconin(AUX));
}
```

Your new code to talk to DC-PORT 1 would be:

```
#define AUX 2
#define DCP1 0x8100

int dcp; /* value of DC-PORT select */

dcp = DCP1; /* assign this 0 if you want to use the main port */

while (TRUE) {
    if (Cconstat()) {
        if ((key=Cconin()) == '/') { /* get key until '/' character */
            break;
        }
    }
}
```

```

        else
            Bconout(dcp|AUX,key);
    }
    if (Bconstat(dcp|AUX))
        Cconout(Bconin(dcp|AUX));
}

```

To set the RS232 parameters, you can simply do:

```

#define DCP1 0x8100

int baud = 7; /* 1200 baud */
long uart_regs; /* uart registers */
int dcp; /* DC-PORT select */

dcp = DCP1;
uart_regs = Rsconf(dcp|baud, -1, -1, -1, -1, -1);

```

This example will return the status of the operation in the high word, and the uart registers in the low word. The status will be 0x0000 if success, 0xffff if fail (DC-PORT isn't connected).

If you don't want to set the baud rate, but rather change one of the other parameters of DC-PORT 1, then you could do:

```
uart_regs = Rsconf(dcp|0xff, -1, -1, -1, 9, -1);
```

or (using the new 1.4 ROMs) to return the current baud value of DC-PORT 1:

```
uart_regs = Rsconf(dcp|0xfe, -1, -1, -1, -1, -1);
```

EASY?

You bet it is! All BIOS and XBIOS calls which deal with the serial port are completely supported by the DC-PORT software handler.

SO WHAT ELSE CAN YOU DO WITH DC-PORT?

You can run MichTron BBS 3.0! That's right, the multi-tasking multi-user MichTron BBS 3.0 supports DC-PORT.

You can program your own applications to run at bauds up to 38400! You read correctly, DC-PORT supports baud rates up to 38400! You can bet that more software will be forthcoming to support the higher baud rate, including a networking system.

DO I HAVE TO TALK TO DC-PORT TO GET INPUT FROM THE SERIAL PORT?

No way! When DC-PORT is ready with a character it generates an interrupt to notify your program. You don't need to waste valuable program time constantly polling the ports, the ports notify you!

HOW DOES DC-PORT WORK?

DC-PORT plugs into your cartridge slot. All power is derived from the computer all of the time. A cable from DC-PORT connects to the ST's main serial port. Three additional cables come out of DC-PORT, which are DC-PORT 0 (the ST's main serial port), and DC-PORT 1 & 2. RS232 pins DTR, Carrier Detect, Ground, Receive and Transmit are completely supported. All data to/from DC-PORT 1 & 2 is written to/read from the cartridge slot using the

fastest algorithm possible for maximum throughput.

WHERE CAN I GET DC-PORT?

You can get DC-PORT directly from Double Click Software, at

Double Click Software
P.O. Box 741206
Houston, Texas 77236-1206

BBS: (713) 944-0108

-or- from MichTron, Inc.

MichTron, Inc.
576 S. Telegraph
Pontiac, Michigan 48053

Voice: (313) 334-5700

DC-PORT is \$199.95 for the cartridge, and
\$29.95 for three DC-PORT cables.

The DC-PORT cables are RS232 on one end, and RJ12 (telephone jack) plugs
on the other end.

DC-PORT comes with a one year warranty on the cartridge and 30 days
warranty on the cables.

DEVELOPERS ..NOTE!

If you are a software developer, and would like to add support for DC-PORT to
your software, please contact us. We will arrange to get you a DC-PORT
for your development purposes.

We can be reached at our support BBS: (713)944-0108; on CompuServe:
76356,2510 ; on GENie: M.VEDERMAN2; on USEnet: uace0@uhnix2; on BITnet:
UACE0@UHUPVM1; and at the HASTE BBS: (713)973-6665 or (713)973-6555.

FREE CABLES!

And, as a special introductory offer. If you order before July 1, 1989,
we will send you DC-PORT for only \$199.95 including the cables! That's
right, you get an automatic 15% discount.

We accept all checks, money orders, and cash.

> HotWireâ € STR Spotlightâ €
=====

HotWireâ ¢ - NEW! from CodeHead!

=====

At CodeHead Software, we're obsessed with finding ways to extend the limits of the ST's operating system. HotWire carries on in the tradition of G+PLUS and MultiDesk, by adding new features to the ST's desktop.

It functions as a sort of "command center" to allow you to quickly and easily run the programs you use, simply by typing a "hot"key. Imagine typing F and running Flash...or typing P and running Timeworks Desktop Publisher. All without opening a single window or wading through level after level of folders. And YOU tell HotWire which "hot" keys to use for which programs, with an ultra-friendly, intuitive GEM interface. If you're using floppy disks, you can simply insert a disk and hit a single key to start up any application...no more opening windows and double-clicking files.

We've tested HotWire with a LOT of programs, and so far, it has been compatible with every single one of them...even the ones that other shells can't run! For example, HotWire is fully compatible with EasyDraw and OUTPRINT, CAD 3D 2.0, Timeworks Swiftcalc (and GRAPH.PRG),Base Two, and just about everything else.

Here's a list of features:

- o Run any ST program instantly simply by pressing a "hot" key from the ST desktop, or from the HotWire Menu!
- o Summon up the HotWire Menu instantly (whenever you're on the GEM desktop) with a keypress!
- o Auto-Start any ST program at bootup!
- o Hard disk users: no more slogging through folder after folder to run your favorite programs. Launch any program instantly with a single keypress, no matter where it resides!
- o Floppy disk users: just pop your program disk in the drive and hit a key! No more waiting for the desktop to open a window.
- o Choose from among over 400 possible "hot" key combinations!
- o The HotWire Menu displays up to 54 programs at once, with graphic representations of their associated "hot" keys! Each program can have a 20-character "title" (not just a filename).
- o Lists of programs can be loaded and saved, either with the file selector or with a single keypress!
- o An intuitive, aesthetically appealing GEM interface lets you easily customize the HotWire Menu to your own preferences.
- o Unique "work file" command line features make HotWire an excellent shell for developers working in C or assembly language. (In fact, HotWire was used along with Atari's MAD MAC assembler to develop itself!)
- o Runs either from your AUTO folder or from the desktop (it's NOT a desk accessory), and can either be installed as a resident program,

or run like any other ST application!

- o If you have CodeHead Software's MultiDesk (which lets you load an unlimited number of desk accessories at any time) HotWire lets you use any of the accessories loaded into MultiDesk, without exiting the HotWire Menu! You must have MultiDesk version 1.8 or higher for this feature to be active.
- o Like all CodeHead Software products, HotWire is written entirely in assembly language. It uses only 40K of your precious memory.
- o Fixes the GEM desktop's "Install Application" feature, so that documents don't have to be in the same directory with their related applications! (No more editing the DESKTOP.INF file, or programs that can't find their resource files...)
- o Unlike most other "shell" programs, HotWire works properly with applications that communicate with desk accessories via the AES event system. (For example, Cyber Control with CAD 3D, Art Gallery or DEGAS Elite Fast Loader with DEGAS Elite, etc.)
- o Applications that are run through HotWire behave exactly as they do when run from the GEM desktop! No mysterious glitches, or unexpected results. The retail price of HotWire is \$39.95, and it can be ordered directly from CodeHead Software. Call us at (213) 386-5735 to order by Visa, Mastercard, or COD, or send a check or money order for the amount indicated plus \$2 shipping (\$3 Canada, \$5 Europe) to:

CodeHead Software
P.O. Box 74090
Los Angeles, CA 90004

P.S.

A demonstration version of HotWire (called HOT_DEMO.ARC) is currently available on GENie, Delphi and Compuserve.

> ST REPORT CONFIDENTIALâ €
=====

- Sunnyvale, CA. ***** SIG HARTMANN ASSUMES MORE RESPONSIBILITIES! *****

Sig Hartmann, a well known and respected Atari Corp. executive has assumed the duties of V. Giametteo. We know that as long as Sig is handling these duties, the affairs of Atari will not be neglected for a single moment. Sig's title is Executive Vice President of Atari Corp. and President of O.E.M. Sales. This means great things are sure to come. A new man, bringing a dynamic ability to lead with him from Borland, Antonio Salerno, is now Vice President of U.S. Software and as such, part of his responsibilities will be to head up Developer Support, Technical Support,

Equipment Sales and eventually do many of the things Sig now does.

- Sunnyvale, CA. ***** SHIRAZ SHIVJI HAS LEFT ATARI *****

It appears that there was a conflict of some sort in the shadow of the Fuji Symbol. To make a long and tacky story short ...Shiraz had fifteen folks working in his area (dep't.), for some reason all but three of these folks were transferred out of his dep't. At this point, Shiraz decided to head for greener pastures. Why? you ask? ...The old adage of blood being thicker than water prompted his decision. RESULT... Atari no longer enjoys the benefits of having the fine mind of Shiraz Shivji at it's disposal. So goes ..the "Father of the ST".

- New York City, NY ***** MONITERM MIFFED AT ATARI *****

You be the Judge, a company comes along and spends literally thousands of Dollars developing a product that will enhance the performance, desirability and value of company B's product's. Does company B show any appreciation? Yes of course they do, they want to get PAID by company A for the right use a lk driver!! We are confident Atari will rectify this small but aggravating situation.

- Trenton, NJ ***** USERGROUPS WAIT, WATCH and SEE *****

Noting that a news item appeared last week stating that Atari will not have a booth at the M.A.C.E. show, major Usergroup leaders around the country have had the opportunity to observe,(with keen interest), the direction and posture Atari is taking. It is sad to see them doing this, after all of us stuck by them when they had almost nothing to offer but talk, remarked one of the UG Presidents. Atari needs to offer more support to it's usergroups and remove the commercialization of the Usergroup's shows and income. Even with the confirmation that Atari will have a booth at the MACE show, leaders of the various Usergroups around the nation are taking a 'wait and see' attitude towards the traveling show idea.

- London, UK ***** ATW IN PRODUCTION *****

The first production run happened last week in West Germany. Initial machines are being sent to important and strategic developers. Atari U.S. is ..according to speculation not going to push the ATW in the States. Here we go again folks....Actually, the ATW is not for everyone, we know and understand that fact. We feel the users in the USA deserve the right to make that choice. If need be, we will carry a regular column direct from the UK dedicated the ATW.

- Sunnyvale, CA

***** NO FURTHER TOS 1.4 ON DISK *****

When we saw the problems rising around TOS 1.4, it became very easy to say "the old footshot is back"! The number of developers in the field who could have assisted in the polishing of TOS 1.4 is strong enough to warrant it being released on disk. Now, to compound matters, the same decision making process has stated that there will be NO further releases of TOS 1.4 to developers. How very bright. This is a perfect way to make sure that all new software has some problem with the release version of TOS 1.4. We certainly hope this type of thinking is thoroughly reviewed and the decision reversed.

While TOS development was under the guidance of Goode and Ferarri there were faithful periodic releases of the disk version to developers. Thus, progress moved right along at a brisk clip. Experience has taught that, when one changes a canoe midstream, the paddle is often lost. We are beginning to see the results; ..recalls, broken code, frazzled nerves, distressed programmers, etc.

The elders absolutely made the right choice in placing Sam Tramiel at the helm. Lord help us if had been * anybody * else.

As an after-thought, the vocal complaints about the gruff treatment given them over the last year and now this devastating decision to keep TOS 1.4 a "secret" until released, may be the "final straw" for many of the vendor/developers who energetically voiced their displeasure to the Atari principles attending Comdex/Spring '89.

- Dallas, TX

***** FEDERATED HEADQUARTERS & 15 STORES CLOSED *****

Atari Corp. has closed 15 of the electronics stores in the Federated Group chain and dismissed a little more than 400 people. Additionally, Atari closed the Dallas Federated headquarters and moved the entire operation to Sunnyvale, California. As reported earlier in STReport, the Federated chain lost \$106.3 million for the fourth quarter ending Dec. 31. Since moving the headquarters, a skeleton executive crew is now in place to wind down Federated's affairs and discontinue it's operations.

- Sunnyvale, CA

***** ATARI IS ADDING MORE DEALERS DAILY *****

After hitting an all time low in participating Dealers, (200) just after 12/88, Atari is now on a full rebound. Reportedly, they have been adding new dealers at the rate of close to 150 est. per month since the beginning of the year. "At this pace, they'll have a firm grip on the market by year's end", said one industry observer.

> Atari Stock ~ STReportâ ¢
=====

THE TICKERTAPE
=====

by Glenn Gorman

ATARI Corp. has been quoted as one of the stocks, on the American Stock Exchange, to watch. So, I've been keeping track of it and thought that others would also be interested.

Atari Stock went up an 1/8 on wednesday, but dropped an of a 1/8 point on Thursday. Winding up the week at 6 1/2 points.

ATARI STOCK WATCH

Week 04-03 to 04-07

	Monday	Tuesday	Wednesday	Thursday	Friday
Sales	391	717	228	301	117
Last	6 1/2	6 1/2	6 5/8	6 1/2	6 1/2
Chg.	-----	-----	+1/8	-1/8	-----
From -> THE CAVE ST BBS <-> 609-882-9195 <-> 3/12/2400 <-> F-NET #351					

> ATW INTERNATIONAL HOTLINEâ ¢
=====

EXPLORING THE WORLD OF ATW
=====

Compiled by Bruce Porter

The transputer product was originally to be called the Abaq. Due to previous registration we are unable to use the name Abaq, and are currently referring to the product as the Atari Transputer Workstation, abbreviated

to ATW.

The specification for the production model is as follows:

Housing: Single box in floor standing tower case.

Processor: Main processor T800-20 (20 Mhz). The T800-20 can perform 10 million instructions per second (MIPS), has 4 Kb of very fast on chip RAM, and a floating point arithmetic processor.

A 68000 (8 Mhz) processor relieves the T800-20 of any I/O tasks to be performed. The 68000 I/O sub-system is connected to the T800 via a transputer link communicating at 20 Mhz.

Memory: The T800 has access to 4 Mb of fast dynamic RAM (120ns) which can be expanded internally to 16 Mb (and eventually to 64 Mb).

The 68000 I/O sub-system is supported by 512 Kb RAM, and can be expanded up to 1 Mb [Ed: RAM size/expandability may change...].

Video Memory: 1 Mb of fast dual ported dynamic RAM (100nS), ports connect to both the main bus and the video bus.

I/O: All I/O is the responsibility of the 68000 I/O sub-system. The sub-system is based upon the Atari MEGA specification and is able to function independent of the host T800 main system. The following I/O is supported via the 68000 I/O sub-system:

- ˆ• SCSI
- ˆ• ACSI
- ˆ• Floppy Disk (3.5" or 5.25")
- ˆ• RS-232
- ˆ• Parallel port
- ˆ• MIDI ports
- ˆ• Mouse port
- ˆ• Joystick port

All standard Atari ST range peripherals can be connected to the 68000 I/O sub-system. These include:

- ˆ• Atari SLM804 Laser Printer
- ˆ• Atari CDAR504 CD ROM player
- ˆ• Atari Megafile Hard Disks

The 68000 I/O sub-system will be capable of supporting its own RGB or composite monitor independent of the main system monitor.

Storage: The ATW will be supplied with a 40 megabyte SCSI hard disk. Additional or higher capacity drives will be available as options.

Video: The ATW will support the following screen resolutions:

Mode	Resolution	Bits per pixel	Colours	Colour Palette
0	1280 x 960	4	16	4096
1	1024 x 768	8	256	16 million
2	640 x 480	8	256	16 million
3	512 x 480	32	True colour	All pixels a different colour.

Suitable monitors:

- ˆ NEC Multisync Plus/XL Mode: 1, 2, 3
- ˆ Hitachi 4615-D-BB-3 Mode: 0
- ˆ Philips M1964 Mode: 0
- ˆ Taxan UltraVision 1000 Mode: 0, 1, 2, 3

The graphic processor (called Blossom) relieves the T800 processor of memory refresh and data transformation between linear and planar address spaces. The graphic processor is capable of addressing the entire user RAM area in addition to the video RAM.

Additional graphic processor specifications:

- ˆ functions designed specifically with X-windows in mind
- ˆ 32 x 32 pixel mask
- ˆ 16 bit wide functions on source and destination
- ˆ 4 linear comparisons on each pixel per cycle
- ˆ square area fill up to 128 Mpixels/sec
- ˆ line drawing up to 32 Mpixels/sec
- ˆ trapezoid fill up to 32 Mpixels/sec

Expansion: Both the main T800 system and the 68000 I/O sub-system can be expanded:

- ˆ 68000 bus is available for expansion via 1 expansion slot
- ˆ T800 bus is available for expansion via 4 expansion slots

The T800 expansion slots will support additional transputers and/or RAM. The T800 bus is also available for adding support cards such as:

- ˆ X.25
- ˆ Ethernet
- ˆ Link cross-bar switch (based on C004/T212)

Up to 16 additional T800-20 can be added to the ATW. There is no limit to the number of processors that can be added externally. (See reference to the Polyhedron expansion unit).

Benchmarks: The ATW benchmarks at the following:

Whetstone/S	Dhrystone/S
ATW (20 Mhz)	3774 6572

ATW Concept: The ATW is designed for flexibility and future expansion.

The ATW can be used as either a standalone workstation or as part of a larger network of workstations. As a stand alone workstation the ATW can support up to 17 transputers internally. Additional transputers are added by inserting a transputer farm card. (A collection of transputers is known as a transputer farm). A typical farm card consists of 4 T800, each with its own 1 megabyte of RAM.

Each transputer has four links and can be linked to other processors in different configurations to resolve different problems. Linear arrays, two dimensional arrays, and cube arrays can all be constructed by changing the link connection between processors. These links can be dynamically changed by using an optional cross-bar switch.

Additional processors can be added externally by extending the transputer links outside of the ATW.

A network of ATWs can thus be created by connecting the ATW via the fast transputer links. An ATW on the network can use the latent processing power of the entire network. Networks of any transputer based systems can be connected.

Perihelion Polyhedron:

The Polyhedron contains 12 transputer farm cards, each supporting 4 T800 and 4 megabytes of RAM, a total of 48 transputers. Link control cards, controlled by a T212 and C004, each control the dynamic linking of 4 farm cards, ie. 16 transputers each. A fully populated Polyhedron will contain 48 T800 and 4 T212, which is able to supply 500 MIPS. When included within a network of ATW, the processors are available to any process within any workstation. The user or program need not be aware of the use or location of the remote processors, as the Helios operating system is responsible for the task allocation to the different processors. The Polyhedron can offer supercomputer performance at about 250 dollars per MIP.

Operating System: The operating system, Helios, is a true distributed operating system. There are no central services upon which the entire system relies, thus making the system more fault tolerant. The distributed nature of Helios is transparent to both the user and programs.

Helios is multi-tasking and designed specifically for a multi-transputer architecture. The Helios environment, with its C shell and UNIX compatible command set and libraries, will be familiar to all UNIX programmers and users. Helios is responsible for distributing program components to the appropriate processor in the transputer network.

Languages: The ATW and Helios are expected to support all major languages including:

- ˆ • ANSI C
- ˆ • Fortran 77
- ˆ • Modula 2
- ˆ • Lisp
- ˆ • Prolog
- ˆ • Basic
- ˆ • occam
- ˆ • Ada

User Interface: X-Windows Version 11 runs on Helios. The X-Window system is the standard for controlling window based graphics on workstations. It is flexible and powerful. A desktop representing data and facilities as icons will simplify the UNIX style interface of Helios. A mouse pointer will enable easy selection of icons and pop up menus.

Applications: The ATW is suitable where processor power and graphic power is required.

Processor Power Applications:

- ˆ • Simulation
- ˆ • Robotics
- ˆ • Emulation
- ˆ • Speech recognition
- ˆ • Speech synthesis
- ˆ • Artificial intelligence

Graphic Power Applications:

- Desktop Publishing
- Image Processing
- Ray Tracing
- CAD
- TV and Film

Product Status:

The development stage of the project has now been completed, resulting in 50 development systems being distributed throughout the world.

Pre-production systems are being produced and should be available during May 1989. The initial 50 development systems were restricted to software developers able to provide languages and graphic development tools. Unlike the development systems the pre-production systems will not be a restricted release, although companies producing a commercial application will have priority. If you are interested in obtaining an ATW please write and indicated the purpose for which you wish to purchase an ATW.

Full scale production is expected to start during June 1989. The ATW is expected to retail for under \$10,000.

Below are a few of the "expenditures" one can expect to make when becoming involved with the ATW.

The 'Blossom' graphics processor can access all RAM.

Graphics functions "designed with X-Windows in mind": 32x32 pixel mask; 16-bit wide functions on source and destination; 4 linear comparisons on each pixel per cycle; square fill up to 128 Mpixels/sec; line drawing and trapezoidal fill up to 32 Mpixels/sec

Expansion slots:

1 for 68000 4 for T-800 (suitable for Perihelion support cards as well as RAM and T-800 / T-414 farms). The Polyhedron card frame is used to support up to 12 extra boards. A system providing 500MIPS can thus be constructed.

Prices: (current conversion rate: (£1 = \$1.70):

ATW, 40M HD, 4M RAM, Helios, X-windows	£4500	(\$7650)	15" Modes 1,2,3
color monitor (NEC)	£799	(\$1360)	20" Mode 0 color
monitor (Hitachi)	£1750	(\$2975)	20" Mode 0 mono
monitor (Philips)	£750	(\$1275)	Farm card F101
(1xT-800, 1M RAM)	£1350	(\$2295)	Farm card F104
(4xT-800, 4M RAM)	£3950	(\$6715)	Dram Card M112
(8M RAM)	£3450	(\$5865)	E101
Ethernet interface including TCP/IP	£750	(\$1275)	X100
X-25 interface	£750	(\$1275)	L001
PC-link AT-transputer adaptor 20Mbits/s	£250	(\$0425)	

This is not a complete price list but gives the general idea. A 500MIPS number-crunching system consisting of ATW, Polyhedron and 50 additional transputers, each with 1M RAM, would cost about £61K (\$103K).

If anyone wants more information, call or write:

Perihelion LTD.
33 Bridge Street
Cambridge, CB2 1UW, UK
Voice: Cambridge area code 0223 - number 356555
Fax: 311475).

> M.A.C.E. SHOW NEWSâ €
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MOVING FORWARD WITH M.A.C.E.
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Atari Corp and MACE (the Michigan Atari Computer Enthusiasts)
present the Michigan Atari Computer Expo on May 6 & 7 at the Detroit Metro
Airport Hilton. Expo hours are 10 am to 6 pm on Saturday, May 6 and 10 am
to 5 pm on Sunday, May 7.

Atari Computer Users and User Groups are invited to attend the MACE
Expo to see new products from many large and small developers, to receive
discounts for these exciting products from distributors and dealers, and to
participate in seminars given by both developers and users.

Seminar speakers include:

Tom Harker, ICD	speaking on Hard drives and kits
George Morrison, Alpha Systems	speaking on Copy-protection
Shelly Merrill, USA Media	speaking on ST-like Operating Systems
Rick Flashman, Gribif	speaking on NeoDesk
Gordon Mella, WordPerfect	speaking on WordPerfect
Wayne Buckholdt, SofTrek	speaking on Speeding up the ST
Charles Johnson, CodeHead	speaking on Copy-protection
Micheal Groh, Atari MIDI Rep.	speaking on Music Publishing
Dave Sullivan, Total Control Sys	speaking on ST-like Operating Systems
Chuck Steinman, DataQue	speaking on Speeding up the 8bit
Darek Mihocka	speaking on ST Xformer
Bob Puff, CSS	speaking on the Future of Shareware
NeoStag Users Group Rep.	speaking on MIDI Music

Besides seminars, there will be door prize drawings ranging from
new software to hard drives to a 520STfm complete system drawing given by
Rite Way Computers, a local dealer. There are no additional charges for
the seminars. The seminars are different each day of the show, and your
ticket is good for both days.

That's right, your \$5 ticket will get you in the door to see
exhibitors and seminars both days. You should also check with your User
Group to see if they have discounted tickets. If they don't, you can

obtain advanced tickets from MACE at only \$4 each (children 12 and under are admitted free of charge).

Please make checks payable to MACE, and send your ticket request to the Michigan Atari Computer Expo, 3487 Braeburn Circle, Ann Arbor, MI 48108. User Groups should call Pattie Rayl at (313) 973-8825 to obtain information on discounted advance sales tickets.

The Detroit Metro Airport Hilton is offering discounted rooms to attendees of the MACE Expo. Double and Single occupancy rooms cost only \$55 a night, and you can make your reservations by calling the Hilton at (313) 292-3400. Please indicate you're attending the show to receive this discount.

> A "QUOTABLE QUOTE"â €
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A well educated man once said;

"YOU ARE ...WHAT YOU EAT!"

or

"FOLLOW MY DIET ...FOR; * I * AM ALWAYS RIGHT!!"

he was lobotomized three hours later.

"1989 - ATARI'S QUEST"

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